SOLID WASTE FACILITY PERMIT

Under the provisions of N.J.S.A. 13:lE-1 *et seq.,* known as the Solid Waste Management Act, this Solid Waste Facility Permit is hereby issued to

OGDEN MARTIN SYSTEMS OF UNION, INC.

FACILITY TYPE: Resource Recovery Facility - Mass Burn Incinerator

LOT NOS.: Parts of 8 and 9

BLOCK NO.: 338

MUNICIPALITY: City of Rahway

COUNTY: Union

FACILITY REGISTRATION NO.: 2013000835

EXPIRATION DATE: 2-21-2002

This Permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection as same may be amended in the future. Any references herein to specific regulations include any future amendments thereto.

This Permit shall not prejudice any claim the State may have to Riparian land, nor does it allow the Permittee to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be Riparian, Wetlands, Stream Encroachment or Flood Plains, or that are within the Coastal Area Facility Review Act (CAFRA) Zone or subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

Compliance with the terms of this Permit does not relieve the Permittee of the obligation to comply with all applicable State and Federal statutes, rules and other permits.

Failure to comply with all of the conditions specified herein may result in revocation of the Permit and/or other regulatory or legal actions which the Department is authorized to institute by law.

The Permittee shall not transfer this Permit without receiving prior written approval from the Department in accordance with N.J.A.C. 7:26-2.7(e).

February 21, 1997 — Signed by Robert C. Ciolek, Assistant Director
Issuance Date

January 21, 1999 — Signed by John A. Castner, P.E., P.P., Director
Transfer of Ownership — John A. Castner, P.E., P.P., Director

February 21, 2002
Expiration Date

CONDITIONS FOR THE
SOLID WASTE FACILITY PERMIT FOR THE UNION COUNTY
RESOURCE RECOVERY FACILITY, CITY OF RAHWAY
UNION COUNTY, NEW JERSEY

PERMITTEE: OGDEN MARTIN SYSTEMS OF UNION, INC.

FACILITY REGISTRATION NUMBER 2013000835

This Solid Waste Facility Permit is conditioned upon compliance with all applicable statutes, rules, regulations and ordinances and the implementation of, and or compliance with, the following conditions:

1. Permitted Waste Types

The following solid waste materials as identified by waste ID numbers and defined in N.J.A.C. 7:26-2.13(g) may be accepted for disposal at this facility:

Type	Description
10	Municipal (household, commercial and institutional waste)
25	Animal and Food Processing Wastes
27	Dry Industrial Waste (as found acceptable in accordance with the "Waste Profiling and Record Keeping Protocol" incorporated in the facility's approved Operations and Maintenance Manual, in Book I, Table 19)

2. Prohibited Waste Types

The following solid and liquid waste materials as defined in N.J.A.C. 7:26-2.13(g) and (h), and 7:26-3A are specifically prohibited from disposal at this facility:

Type	Description
12	Dry Sewage Sludge
13	Bulky Waste
23	Vegetative Waste
27A	Asbestos or Asbestos Containing Waste
27I	Incinerator Ash or Ash Containing Waste
72	Bulk Liquid and Semi-Liquids
73	Septic Tank Clean-out Wastes
74	Liquid Sewage Sludge

Regulated Medical Waste	All classes, as defined at N.J.A.C. 7:26-3A.6(a)

3. Recyclables

a. The Permittee shall maintain a recyclables inspection plan in accordance with the Union County District Solid Waste Management Plan, as well as the Solid Waste Management Plans of any other Solid Waste Management District from which waste is to be received, which includes the respective District's Recycling Plans. The inspection plan shall include appropriate provisions regarding enforcement and notification procedures. The purpose of these plans is to ensure that bulk loads of recyclables are not delivered and processed at the facility.

b. Recyclable materials designated in the District(s) Recycling Plan(s) to be source separated in each municipality pursuant to N.J.S.A. 13:lE-99.13b(2), shall not be accepted for disposal at this facility. Loads of waste delivered to the facility which contain designated recyclable materials in excess of the threshold level of acceptability specified in the District(s) Recycling Plan(s), shall be handled pursuant to the provisions of said Plan(s) and the recyclables inspection plan, included in the facility Operations and Maintenance Manual.

In this regard, the Permittee shall identify any hauler found to be in violation of the District(s) Recycling Plan(s), and shall provide the necessary information to the designated enforcement agency set forth in the Plan(s), and to the designated recycling coordinator of the municipality from which the waste originated.

c. The recyclables inspection plan, included as part of the facility's Operations and Maintenance Manual, shall reflect the requirements of the approved District(s) Recycling Plan(s). Any changes made to the approved District(s) Recycling Plan must be reflected, as necessary, in revisions to the Operations and Maintenance Manual. These 0 & M Manual revisions shall be implemented in accordance with the procedures outlined in Condition Number 5 of this Permit.

4. Referenced Engineering Plans

The construction and operation of this facility shall be in accordance with the provisions of N.J.A.C. 7:26-1 *et seq.* and the following:

a. "Standard Application Form (CP #1), Construction and Discharge Permits" with "Solid Waste Supplement to Standard Application Form CP #1" dated November 18, 1987; revised and dated August 19, 1988; revised within Volume I of Addendum IV (Condition 4.j. below) dated December 16, 1988; prepared by HDR Engineering, Incorporated of White Plains, NY on behalf of the Permittee.

b. "Final Environmental and Health Impact Statement for the Union County Resource Recovery Project" (the EHIS), February 1988; prepared by HDR Techserv, Inc. and

Malcolm Pirnie, Inc. both of White Plains, NY.

(1) "Volume I" (Text)
(2) "Volume II, Appendices" (A through I)

c. Addendum to the EHIS: "Traffic Impact Study for Union County Resource Recovery Facility, U.S. Route 1 and 9, City of Rahway, New Jersey." April 1988; prepared by Andrews & Clark, Inc. of New York City, NY.

d. Addendum to the EHIS: "Supplemental Wildlife Survey Report for Union County Resource Recovery Facility Environmental and Health Impact Statement, Union County Utilities Authority," April 15, 1988; prepared by EcolSciences, Inc. of Rockaway, NJ.

e. "Engineering Design Submittal for Union County Resource Recovery Project" (the EDS), February 1988; prepared by HDR Techserv, Incorporated of White Plains, NY:

(1) "Volume I" (Text)
(2) "Volume ll, Appendices" (A through L)
(3) "Volume IIIM, Appendices (Continued)" [M: maps and engineering drawings (some later superseded)]
(4) "Volume IV, Appendices (Continued)" [M, continued (some later superseded) and N: calculations]

f. "Solid Waste Facility Permit Application Addendum," July 1988; prepared by HDR Engineering, Incorporated and Malcolm Pirnie, Incorporated, both of White Plains, NY, by Ogden Martin Systems of Union, Incorporated of Fairfield, NJ, and by Rubin, Rubin and Malgran, Attorneys at Law of Piscataway, NJ.

(1) "Volume I" (Text)
(2) "Volume II, Appendices" (A through K)
(3) "Volume III", [Revised drawings (all later superseded)]
(4) "Volume IV, Preliminary Operations and Maintenance Manual"

g. "Solid Waste Facility Permit Application Addendum II," August, 1988; prepared by HDR Engineering, Incorporated and Malcolm-Pirnie, Incorporated, both of White Plains, NY, by Ogden Martin Systems of Union, Incorporated of Fairfield, NJ, by Rubin, Rubin and Malgran, Attorneys at Law of Piscataway, NJ, by the Union County Utilities Authority of Elizabeth, NJ, and by Andrews and Clark, Inc. of New York City, NY.

(1) "Volume I" (Text)
(2) "Volume II" [Revised drawings (some later superseded)].

h. "Solid Waste Facility Permit Application Addendum II Supplement," October, 1988; prepared by HDR Engineering, Incorporated and Malcolm Pirnie, Incorporated both of White Plains, NY, by Ogden Martin, Systems of Union, Incorporated of Fairfield, NJ,

and by Andrews and Clark, Inc. of New York City, NY.

(1) "Volume I" (Text, "Appendix C," intended to be added to the text Volume I of Addendum II rather than being a separate document)

(2) "Volume II" [Revised drawings, intended to be substituted for same-numbered drawings in Volume II of Addendum II rather than being a separate drawing set (some later superseded)]

i. "Solid Waste Facility Permit Application Addendum III," September, 1988; prepared by HDR Engineering, Incorporated and Malcolm Pirnie, Incorporated both of White Plains, NY, and by Ogden Martin Systems of Union, Incorporated of Fairfield, NJ:

(1) Supplements A and B to Addendum III, September 28, 1988; prepared by HDR Engineering, Inc. of White Plains, NY;

(2) Final Attachments to Supplements A and B of Addendum III, September 30, 1988; prepared by HDR Engineering, Inc. of White Plains, NY.

j. "Solid Waste Facility Permit Application Addendum IV" December, 1988; prepared by HDR Engineering, Incorporated and Malcolm Pirnie, Incorporated both of White Plains, NY, by Ogden Martin Systems of Union, Incorporated of Fairfield, NJ, and by Andrews and Clark, Inc. of New York City, NY.

(1) "Volume I" [Text]
(2) "Volume II" [Revised drawings]
(3) "Volume III", [Text]
(4) "Compendium of Environmental and Geotechnical Investigations"

k. "Solid Waste Facility Permit Application Addendum IV, Volume III, Supplement A", February 1989; prepared by HDR Engineering, Inc. of White Plains, NY.

l. "Solid Waste Facility Permit Application Addendum V", April, 1989; prepared by HDR Engineering, Incorporated and Malcolm Pirnie, Incorporated both of White Plains, NY, by Ogden Martin Systems of Union, Incorporated of, Fairfield, NJ and by Andrews and Clark, Inc. of New York City, NY.

(1) "Volume I" -[Text]
(2) "Volume II" [Revised drawings]

m. "Solid Waste Facility Permit Application Addendum IV, Volume III, Supplement B", April, 1989; prepared by HDR Engineering, Inc. of White Plains, NY.

n. "Solid Waste Facility Permit Application Addendum V, Supplement," June, 1989; prepared by HDR Engineering, Incorporated and Malcolm Pirnie, Incorporated both of White Plains, NY, by Ogden Martin Systems of Union, Incorporated of Fairfield, NJ and by Andrews and Clark, Inc. of New York City, NY.

(l) "Volume III" [Text]
(2) "Volume IV" [Revised drawings]

o. "Supplement C to Solid Waste Facility Permit Application Addendum IV - Volume III", June 19, 1989; prepared by HDR Engineering, Incorporated of White Plains, NY.

p. "Supplement to Solid Waste Facility Permit Application Addendum V, Volumes III and IV," July 17, 1989; prepared by HDR Engineering, Inc. and Malcolm Pirnie, Inc. both of White Plains, NY.

q. "Solid Waste Facility Permit Preconstruction Requirements," September 20, 1991; prepared by HDR Engineering Inc.

r. Letter dated November 25, 1991 to, Edmund Reardon, Principal Engineer, NJDEP from Joseph F. Puzio, Senior Project Manager, HDR Engineering, Inc. transmitting pre-construction submissions.

Note: Only the latest revision of each map or drawing is included in the listings, Conditions 4.s. through 4.x., which follow. The submittal of each map or drawing is identified by reference to the preceding Conditions 4.e. through 4.p., in brackets following the revision date.

s. The following full sized maps which were prepared by HDR Techserv, Inc. of White Plains, NY under the supervision of John L. Rose (New Jersey Professional Engineer, Lic. No. 16429):

Dwg. No. 00-C-101, Rev. 1, 1-19-88 [included in Condition 4.e.] Key Map: Site Location, Surface Waters, Coastal Zones; Main Access Roads, and Airport

Dwg. No 00-C-102, Rev. 1, 1-15-88 [included in Condition 4e] Key Map: Site Location and Existing Land Use

Dwg. No. 00-C-103, Rev. 1, 1-19-88 [included in Condition 4e] Key Map: Location and Existing Water Producing Wells, Reservoirs and 100-year Flood Hazard Areas

Dwg. No. 00-C-104, Rev. 1, 1-15-88 [included in Condition 4e] Key Map: Location of Wetlands

Dwg. No. 00-C-201, Rev. 1, 1-18-88 [included in Condition 4e] Vicinity Map: Site and Local Zoning

t. The following full sized map which was prepared by HDR, Techserv Inc. of White Plains, NY under the supervision of Joseph F. Puzio (New Jersey Professional Engineer, Lic. No. 33922):

Dwg. No. 00-C-202, Rev. 8, 8-2-91 [included in Condition 4q] Vicinity Map: Utilities Location

u. The following full-size drawings which were prepared by Kupper Associates of Piscataway, NJ under the supervision of Alexander J. Rusin (New Jersey Land Surveyor, Lic. No. 11761):

Dwg. No. 00-C-203, Rev. 3, December 1988 [included in Condition 4j] Sketch Plat: Property of Union County Utilities Authority

Dwg. No. --none--, Rev. 1, 5-19-88 [included in Conditions 4g & 4j] Survey for Union County Utilities Authority

v. The following full-size drawings which were prepared by Stone & Webster Engineering Corp. of New York City, NY under the supervision of the New Jersey Professional Engineer whose name and license number is shown preceding the drawing identifications which follow:

Supervised by John W. Wood, Lic. No. 22641:

Dwg. No. A-I, Rev. 3, 8-19-88 [included in Condition 4g] Administration Building Floor Plans

Supervised by Suresh C. Bapat, Lic. No. 30410:

Dwg. No. A-2, Rev. 11, 12-16-88 [included in Condition 4j] Exterior Building Elevations

Supervised by Carl J. Passeri, Lic. No. 26931:

Dwg. No. A-3, Rev. 11, 12-12-88 [included in condition 4j] Exterior Building Elevations

Supervised by Suresh C. Bapat, Lic. No. 30410:

Dwg. No. A-4, Rev. 9, 12-16-88 [included in Condition 4j] Scale House, Scalper & Residue Buildings.

Dwg. No. A-5, Rev. 11, 12-16-88 [included it Condition 4j] General Arrangement: North Elevation

Dwg. No. A-6. Rev-. 11, 4-18-88 [included in Condition 4l] General Arrangement: South Elevation

Dwg. No. A-7, Rev. 9, 12-12-88 [included in Condition 4j] General Arrangement: East Elevation

Supervised by Carl J. Passeri, Lic. No. 26931:

Dwg. No. A-8, Rev. 9, 12-12-88 [included in Condition 4j] General Arrangement: West Elevation

Supervised by John W. Wood, Lic. No. 2041:

Dwg. No. A-9, Rev. 2, 8-19-88 [included in Condition 4g] Administration Building Floor Plans

Supervised by Suresh C. Bapat, Lic. No. 30410:

Dwg. No. C-l, Rev. 15, 7-14-89 [included in Condition 4p] Plot Plan

Dwg. No. C-2, Rev. 22, 7-14-89 [included in Condition 4p] Grading & Drainage

Dwg. No. C-3, Rev. 18, 7-14-89 [included in Condition 4p] Boring Location Plan

Supervised by Carl J. Passeri, Lic. No. 26931:

Dwg. No. C-4, Rev. 13, 11-18-91 [included in Condition 4r] Erosion and Sediment Control Plan

Supervised by Suresh C. Bapat, Lic. No. 30410:

Dwg. No. C-5, Rev. 17, 7-14-89 [included in Condition 4p] Erosion and Sediment Control Plan Construction Sequence

Dwg. No. C-6, Rev. P, 7-14-89 [included in Condition 4p]
Plot Plan Overlay on Sketch Plat

Dwg. No. C-7, Rev. 13, 7-14-85 [included in Condition 4p] Facility Location Plan

Dwg. No. C-8. Rev. 11, 7-14-89 [included in Condition 4p] Site Plan Schematic

Supervised by Carl J. Passeri Lic. No. 26931:

Dwg. No. C-9, Rev. 6, 11-18-88 [included in Condition 4j] Sections and Details

Dwg. No. C-10, Rev. 1, 9-21-88 [included in Condition 4h] Sections and Details

Supervised by J. H. Pfeiffer, Lic. No. 19342:

Dwg. No. E-0, Rev. 2, 8-18-88 [included in Condition 4g] Electrical Legend & Symbols

Dwg. No. E-1, Rev. 3, 8-18-88 [included in Condition 4g] Main Single Line Diagram

Supervised by Charles S. Costanzo, Lic. No. 32139:

Dwg. No. E-2, Rev. 3, 3-22-89 [included in Condition 41] 460V Single-Line Diagram

Supervised by J. H. Pfeiffer, Lic. No. 19342:

Dwg. No. E-3, Rev. 2, 8-18-88 [included in Condition 4g] 480V Unit Substation Single-Line Diagram

Supervised by Charles S. Costanzo, Lic. No. 32139:

Dwg. No. E-4. Rev. 4, 3-31-89 [included in Condition 41] MCC Single-Line Diagram

Supervised by J. H. Pfeiffer, Lic. No. 19342:

Dwg. No. E-5, Rev. 3, 8-18-88 [included in Condition 3g] 26KV Switchyard

Supervised by Bashir Shaikh, Lic. No. 27919:

Dwg. No. M-1, Rev. 3, 6-7-89 [included in Condition 4n] Mechanical Legend

Dwg. No. M-2, Rev. 15, 7-14-89 [included in Condition 4p] General Arrangement: Plan EL (-25'-0", 0'-0", & 15'-0")

Supervised by Lawrence S. Weiss, Lic. No. 32570:

Dwg. No. M-3, Rev. 5, 8-19-88 [included in Condition 4g] General Arrangement: Plan EL (18'-0 & 30'-O')

Dwg. No. M-4, Rev. 7, 8-19-88 [included in Condition 4g] General Arrangement: Plan EL (46'-0" & 63'-6")

Supervised by Bashir Shaikh, Lic. No. 27919:

Dwg. No. M-5, Rev. 7, 5-25-89 [included in Condition 4n] Heat & Mass Balance

Supervised by Lawrence S. Weiss, Lic. No. 32570:

Dwg. No. M-6, Rev. 6, 8-19-88 [included in Condition 4g] Water Balance Diagram

Dwg. No. M-7, Rev. 3, 8-19-88 [included in Condition 4g] P&I Diagram: Main Steam System

Dwg. No. M-8, Rev. 3, 8-19-88 [included in Condition 4g] P&I Diagram: Extraction Steam System

Dwg. No. M-9, Rev. 2, 8-19-88 [included in Condition 4g] P&I Diagram: Feedwater System

Dwg. No. M-10, Rev. 6, 8-19-88 [included in Condition 4g] P&I Diagram: Condensate System

Supervised by Bashir Shaikh, Lic. No. 27919:

Dwg. No. M-11, Rev. 4, 6-7-89 [included in Condition 4n] P&I Diagram: Closed Cooling System

Supervised by Lawrence S. Weiss, Lic. No. 32570:

Dwg. No. M-12, Rev. 9, 9-21-88 [included in Condition 4h] P&I Diagram: Waste/Service Water System

Supervised by Bashir Shaikh, Lic. No. 27919:

Dwg. No. M-13, Rev. 9, 4-20-89 [included in Condition 41] P&I Diagram: Combustion Air & Flute Gas

Dwg. No. M-14, Rev. 7, 6-7-89 [included in Condition 4n] P&I Diagram: Fire Protection System

Supervised by Lawrence S. Weiss, Lic. No. 32570:

Dwg. No. M-15, Rev. 3, 8-19-88 [included in Condition 4g] P&I Diagram: Fly-Ash Conveying System, No. 1 Boiler System

Dwg. No. M-16, Rev. 3, 8-19-88. [included Condition 4g] P&I Diagram: Fly-Ash Conveying System, No. 2 Boiler System

Dwg. No. M-17, Rev. 3, 8-19-88 [included in Condition 4g] P&I Diagram: Fly-Ash Conveying System, No. 3 Boiler System

Dwg. No. M-18, Rev. 5, 12-9-88 [included in Condition 4j] P&I Diagram:

Residue System

Dwg. No. M-19, Rev. 3,- 8-19-88 [included in Condition 4g) P&I Diagram: Superheater Economizer

Dwg. No. M-20, Rev. 4, 8-19-88 [included in Condition 4g] General Arrangement: Cross Section

Dwg. No. M-21, Rev. 2, 8-19-88 [included in Condition 4g] P&I Diagram: Process Sampling

Dwg. No. M-23, Rev. 5, 8-19-88 [included in Condition 4g] Flow Diagram: Chemical Feed System

Dwg. No. M-24, Rev. 3, 8-19-88. [included in Condition 4g] Flow Diagram: Make-up Water Treatment System

Dwg. No. M-25, Rev. 6, 12-9-88 [included in Condition 4j] General Arrangement: Plan - Residue System

Supervised by Bashir Shaikh, Lic. No. 27919:

Dwg. No. M-26, Rev. 20, 8-2-91 [included in Condition 4q] Yard Piping Plan

Dwg. No. M-27, Rev. 8, 7-14-89 [included in Condition 4p] P & I Diagram, Thermal Denox system

Supervised by Charles S. Costanzo, Lic. No. 32119:

Dwg No. M-300, Rev. 3, 4-18-89 [included in Condition 4k] Electrical Area Classification Plan

Supervised by Bashir Shaikh, Lic. No. 27919:

Dwg. No. SK-M-200, Rev. E, 5-25-89 [included in Condition 4l] Process Flow Diagram Anhydrous Ammonia DeNox System

Dwg. No. SK-M-400 (17" x 11") Rev. 'A', 5-25-89 [included in Condition 4l] Typical Ammonia Transport Truck, P & I Diagram

w. The following full-size drawings which were prepared by the Musial Group of Elizabeth, NJ under the supervision of Noel J. Musial (New Jersey Registered Architect C5415):

Dwg. No. L-1, 11-13-91 [included in Condition 4r] Wetlands Mitigation and Landscaping Plan

Dwg. No. L-2, 11-13-91 [included in Condition 4r] Typical Sections - Wetlands Mitigation and Landscaping Plan

x. The following full-size drawings which were prepared by Herman W. Wenson, Architect-Engineer of Rahway, NJ under the supervision of Herman W. Wenson (New Jersey Professional Engineer, Lic. No. 10345):

Dwg. No. X-1, Rev. 4, 11-29-88 [included in Condition 4j] Site Plan

Dwg. No. X-2, Rev. 3, 11-29-88 [included in Condition 4jl Sections, Details & Notes

y. The permit is modified to include the following Architectural Drawings, preparation of which was supervised by James E. Chow, N.J.P.E. Lic. No. 36348, as Drawings of Record:

Drawing A-IA, Revision 6, 12-17-93 Administrative Building Floor Plans (expanded from Drawing A-1 to show first floor)

Drawing A-Lb, Revision 5, 12-17-93 Administrative Building Floor Plans (expanded from Drawing A-1 to show second floor)

Drawing A-2, Revision 13, 12-17-93 Exterior Building Elevations

Drawing A-3, Revision 10, 12-17-93 Exterior Building Elevations

Drawing A-4, Revision 12, 12-16-93 Scale House, Scalper and Residue Buildings

Drawing A-5, Revision 14, 12-17-93 General Arrangement: North Elevation

Drawing A-6, Revision 14, 12-17-93 General Arrangement: South Elevation

Drawing A-7, Revision 11, 12-16-93 General Arrangement: East Elevation

Drawing A-8, Revision 13, 12-17-93 General Arrangement: West Elevation

z. The permit is modified to include the following Civil Drawings, preparation of which was supervised by James E. Chow, Lic. No. 36348, as Drawings of Record:

Drawing C-1, Revision 18, 12-16-93 Plot Plan

Drawing C-2, Revision 30, 12-20-93 Grading Drainage

Drawing C-3, Revision 19, 7-21-92 Boring Locations

Drawing C-4, Revision 14, 7-21-92 Erosion and Sediment Control Plan

Drawing C-5, Revision 18, 7-21-92 Erosion and Sediment Control Plan Construction Sequence

Drawing C-6, Revision Q, 7-21-92 Plot Plan Overlay on Sketch Plan

Drawing C-7, Revision 15, 7-19-93 Facility Location Plan

Drawing C-8, Revision 14, 7-21-92 Site Plan Schematic

Drawing C-9, Revision 8, 7-19-93 Sections and Details

Drawing C-10, Revision 2, 12-16-93 Sections and Details

aa. The permit is modified to include the following Electrical Drawings, preparation of which was supervised by Luis Diaz, N.J.P.E. Lic. No. 37748, as Drawings of Record:

Drawing E-101, Revision 2, 12-22-93 Main Single-Line Diagram (to replace Drawing E-1)

Drawing E-102, Revision 2, 12-22-93 Main Single-Line Diagram (to replace Drawing E-2)

Drawing E-103, Revision 2, 12-22-93 480V Unit Substation Single-Line Diagram (to replace Drawing E-3)

Drawing E-104, Revision 3, 12-22-93; E-105, E-106, E-107, Revision 2, 7-1-93 MCC Single-Line Diagram (to replace Drawing E-4)

Drawing E-151, Revision E, 12-17-93 26KV Switchyard (to replace Drawing E-5)

ab. The permit is modified to include the following Mechanical Drawings, preparation of which was supervised by Gerald J. Finnerty, N.J.P.E. Lic. No. 36500, as Drawings of Record:

Drawing M-2, Revision 19, 12-17-93 General Arrangement: Plan EK (-25', O'& 15')

Drawing M-3, Revision 8, 12-17-92 General Arrangement:
Plan EL (18' & 30')

Drawing M-4, Revision 8, 4-14-93 General Arrangement:
Plan EL (46', 63'-6")

Drawing M-5, Revision 12, 12-17-93 Heat & Mass Balance

Drawing M-6, Revision 9, 7-20-93 Water Balance Diagram

Drawing M-7, Revision 5, 12-16-93 P&I Diagram: Main Steam System

Drawing M-8, Revision 7, 12-16-93 P&I Diagram: Extraction Steam System

Drawing M-9, Revision 3, 12-16-93 P&I Diagram: Feedwater System

Drawing M-10, Revision 9, 12-16-93 P&I Diagram: Condensate System

Drawing M-11, Revision 7, 12-16-93 P&I Diagram: Closed Cooling System

Drawing M-12, Revision 13, 12-17-93 P&I Diagram: Waste/Service Water System

Drawing M-13, Revision 13, 12-17-93 P&I Diagram: Combustion Air & Flue Gas

Drawing M-14, Revision 8, 6-27-92 P&I Diagram: Fire Protection System

Drawing M-15, Revision 4, 6-27-92 P&I Diagram: Fly-Ash Conveying System, No. 1 Boiler System

Drawing M-16, Revision 4, 6-27-92 P&I Diagram: Fly-Ash Conveying System, No. 2 Boiler System

Drawing M-17, Revision 4, 6-27-92 P&I Diagram: Fly-Ash Conveying System, No. 3 Boiler System

Drawing M-19, Revision 4, 12-17-93 P&I Diagram: Superheater and Economizer

Drawing M-20, Revision 6, 3-1-93 General Arrangement: Cross Section

Drawing M-21, Revision 3, 12-17-93 P&I Diagram: Process Sampling

Drawing M-23, Revision 6, 12-17-93 Flow Diagram: Chemical Feed System

Drawing M-24, Revision 4, 6-27-92 Flow Diagram: Make-up Water Treatment System

Drawing M-25, Revision 9, 4-2-93 General Arrangement: Plan - Residue System.

Drawing M-26, Revision 24, 12-20-93 Yard Piping Plan

Drawing M-27, Revision 12, 4-22-93 P&I Diagram: Thermal DeNox System

Drawing M-300, Revision 4, 4-22-93 Electrical Area, Classification Plan; (Drawing Deleted)

Drawing Sk-M-200, Revision G, 2-26-93 Process Flow Diagram Aqueous Ammonia, DeNox System

Drawing Sk-M-400, Revision B, 4-27-93, Typical Ammonia Transport Truck, P&I Diagram

ac. The permit is modified to include the following Water Supply Drawings, preparation of which was supervised by Herman Wenson, N.J.P.E. Lic. No. 10345, as Drawings of Record:

Drawing X-1, Revision 8, 12-17-93 Site Plan

Drawing X-2, Revision 6, 5-27-93 Sections, Details & Notes

The following documents were presented as part of the Solid Waste Facility Permit Renewal application made to the Bureau of Resource Recovery on behalf of the facility owner and permit holder, Union County Utilities Authority:

ad. Documents submitted to Sukhdev Bhalla, Chief, Bureau of Resource Recovery, under cover letter dated September 29, 1994, from Jeffrey S. Callahan, Executive Director, UCUA.

ae. Documents submitted to Sukhdev Bhalla, Chief, Bureau of Resource Recovery, under cover letter dated October 13, 1994, from Jeffrey S. Callahan, Executive Director, UCUA, in response to the Bureau letter dated September 30, 1994.

af. Documents and drawings submitted to Sukhdev Bhalla, Chief, Bureau of Resource Recovery, under cover letter dated December 21, 1994 from Jeffrey S. Callahan, Executive Director, UCUA, prepared in response to the Bureau's Administrative Completeness review and subsequent letter dated November 22, 1994.

ag. Documents submitted to Sukhdev Bhalla, Chief, Bureau of Resource Recovery, under cover letter dated September 14, 1995 from Jeffrey S. Callahan, Executive Director, UCUA, prepared in response to the Bureau's First Technical Review and subsequent Notice of Deficiency (NOD) issued on July 13, 1995.

ah. Document submitted to Robert C. Ciolek, Assistant Director, Office of Permitting, under cover letter dated December 22, 1995 from Joseph J. Lifrieri, P.E., PS&S, prepared in response to the Second Technical Review and subsequent NOD issued on December 7, 1995.

ai. Documents and drawings submitted to Sukhdev Bhalla, Chief, Bureau of Resource Recovery, from Jeffrey Callahan, Executive Director, UCUA, under cover letter dated

August 8, 1994 and supplemented under cover letters dated October 13, 1994 (Supplemental Renewal Document) and January 13, 1995; these submissions, prepared to modifications to the Facility Design for the incorporation of the Interim and Permanent Mercury System, and include:

1. Revisions to the Operation and Maintenance Manual, Volume II, Section 30, dated October, 1994.

The following Civil Drawings, preparation of which was supervised by James E. Chow, N.J.P.E. Lic. No. 36348, as Drawings of Record:

2. Drawing A-5,. Revision 15, 12-20-94 General Arrangement: North Elevation

3. Drawing A-8, Revision 14, 12-20-94 General Arrangement: West Elevation

4. Drawing C-2, Revision 33, 12-20-94 Grading & Drainage

5. Drawing C-7, Revision 16, 12-20-94 Facility Location Plan

6. Drawing M-5, Revision 15, 12-30-94 Heat & Mass Balance

7. Drawing M-13, Revision 15, 12-20-94 P&I Diagram: Combustion Air & Flue Gas

8. Drawing M-26, Revision 25, 12-20-94 Yard Piping Plan

9. Drawing UN-SK-001, Revision (Undated) Dry Activated Carbon Injection System, Simplified Process Flow Diagram

aj. Modification requested under cover letter dated August 29, 1995, to Sukhdev Bhalla, Chief, Bureau of Resource Recovery, from Executive Director Callahan, UCUA, and supplemented with documents and drawings submitted under cover letter dated April 12, 1995 by Paulus, Sokolowski & Sartor, prepared in support of a parking lot expansion; the submission documents include:

"Transmittal - Drainage calculations", submitted April 12, 1995, prepared by Walter F. Judge, P.E., Paulus, Sokolowski and Sartor, Inc. Consulting Engineers;

"Demolition Plan - Sheet C-1.1, U.C.U.A. Project 1.6 - Parking Lot Expansion", prepared by Philip A. Falcone, N.J.P.E. License No. 17975, dated March 2, 1995;

"Site Plan - Sheet C-1.2, U.C.U.A. Project 1.6 Parking Lot Expansion", prepared by Philip A. Falcone, N.J.P.E. License No. 17975, dated March 2, 1995;

"Grading Drainage Plan - Sheet C-1.3, U.C.U.A. Project 1.6 - Parking Lot Expansion", prepared by Philip A. Falcone, N.J.P.E. License No. 17975, dated March 2, 1995;

"Landscaping & Lighting Plan - Sheet C-1.4, U.C.U.A. Project 1.6 - Parking Lot Expansion", prepared by Philip A. Falcone, N.J.P.E. License No. 17975, dated March 2, 1995;

"Soil Erosion & Sediment Control Plan - Sheet C-1.5, U.C.U.A. Project 1.6 - Parking Lot Expansion", prepared by Philip A. Falcone, N.J.P.E. License No. 17975, dated March 2, 1995; and

"Details - Sheet C-1.6, U.C.U.A. Project 1.6 Parking Lot Expansion", prepared by Philip A. Falcone, N.J.P.E. License No. 17975, dated March 2, 1995.

ak. Modifications requested under original cover letter dated January 13, 1998 to John Castner, Assistant Director, Office of Permitting and Technical Programs, from Executive Director Joseph A. Spatola, Union County Utilities Authority, and submitted with documents and drawings, prepared in support of consideration to; increase annual throughput of waste, alter the maximum steam production limits, revise the list of approved waste types to include ID#27 Industrial Waste, expand waste delivery hours, and to alter the facility physical plant to allow for the construction of an ash conditioning system. Related submissions include:

1. Cover letter dated January 13, 1998, to John Castner, Assistant Director, Office of Permitting and Technical Programs, from Executive Director Joseph A. Spatola, Union County Utilities Authority, along with the following attachments:

   "Attachment 1 - Request for Solid Waste Permit Modification to Increase Annual Waste Processing Limit";

   "Attachment 2 - Request for Solid Waste Permit Modification to Increase Maximum Steam Production Rate";

   "Attachment 3 - Permitted Waste Types and Prohibited Waste Types";

   "Attachment 4 - Union County Utilities Authority Union County Resource Recovery Facility Noise Impact Assessment of Expanded Operating Hours"; and

   "Proposal No. 5 - Drawings/Sketches" (Ash Conditioning System).

2. Cover letter dated April 1, 1998 to Iclal Atay, Chief, Bureau of Air Quality Engineering, from Executive Director Joseph A. Spatola, Union County Utilities Authority, conveying analytical information supporting UCUA

position that PSD Permit modification is not required. Also included was a draft copy of the "Waste Profiling and Recordkeeping Protocol - Union County Resource Recovery Facility."

3. "Response to comments - Union County Resource Recovery Facility Proposed Permit Modifications for Proposed Lease Between UCUA and OMSU - April 1998", prepared by Paulus, Sokolowski, and Sartor, Inc. Consulting Engineers and Environmental Planners of Warren, NJ on behalf of the Permittee, received by the Division of Solid and Hazardous Waste on April 15, 1998. The submission document includes the following engineering drawings:

   Mechanical Drawings revised by Ireneusz Zaleleski, N.J.P.E. Lic. No. GE 35818, sealed and signed on 3-20-98, as Drawings of Record:

   "Drawing M-2, Revision 20, 3-6-98 General Arrangement: Plan EL (-28'0" 0',0', 15'-0")";

   Drawing M-3, Revision 9, 3-6-9 General Arrangement: Plan EL (18'-0" & 30'-0")";

   "Drawing M-4, Revision 9, 3-6-98 General Arrangement: Plan EL (46'-0" & 63'-6")";

   "Drawing M-12, Revision 14, 3-6-98 P&I Diagram Waste/Service Water System";

   "Drawing M-15, Revision 6, 3-6-98 P&I Diagram Fly - Ash Conveying System No.1 Boiler System";

   "Drawing M-16, Revision 6, 3-6-98 P&I Diagram Fly - Ash Conveying System No. 2 Boiler System";

   "Drawing M-17, Revision 6, 3-6-98 P&I Diagram Fly - Ash Conveying System No. 3 Boiler System";

   "Drawing M-18, Revision 6, 3-6-98 P&I Diagram Fly - Ash Conveying System";

   "Drawing M-20, Revision 7, 3-6-98 General Arrangement Cross Section"; and

   "Drawing M-25, Revision 10, 3-6-98 General Arrangement Plan - Residue System".

   Electrical Drawings revised by Subhenou Bagch, N.J.P.E. Lic. No. 39475, sealed and signed on 4-8-98, as Drawings of Record:

   "Drawing E-104-5, Revision 5, 3-18-98, 480V One Line Diagram MCC -

TBI"; and

"Drawing E-105-4, Revision 4, 3-18-98, 480V One Line Diagram MCC-TB2".

4. "Additional Response to Comments Union County Resource Recovery Facility Proposed Permit Modifications for Proposed Lease Between UCUA and OMSU - April 1998", prepared by Paulus, Sokolowski and Sartor, Inc., Consulting Engineers and Environmental Planners of Warren New Jersey, on behalf of the Permittee, received by the Division of Solid and Hazardous Waste on April 28, 1998. The Submission document also includes the following engineering drawings:

Mechanical Drawings prepared by Ireneusz Zalewski, N.J.P.E. Lic. No. GE35818, sealed and signed on 4-21-98, as Drawings of Record:

"Drawing M-5A, Revision O, 4-3-98 Heat & Mass Balance (1540 TPD/5050 BTU/LB)";

"Drawing M-5B, Revision O, 3-4-98 Short Term Peak Operation Heat & Mass Balance (1440 TPD/6000 BTU/LB)";

"Drawing M-6A, Revision O, 4-3-98 Water Balance Diagram (1540 TPD/5050 BTU/LB)"; and

"Drawing M-6B, Revision O, 4-3-98 Short Term Peak Operation Water Balance Diagram (1440 TPD/6000 BTU/LB)".

In case of conflict, the most recent revisions and supplemental information shall prevail over prior submittals and designs, and the conditions of this Permit shall supersede those of the engineering design and environmental impact statement referenced above.

5. Operations and Maintenance Manual

The Final Operations and Maintenance (O&M) Manual initially approved by the Department on January 14, 1994, amended collectively with the Solid Waste Facility Permit renewal of February 21, 1997, and subsequently revised to reflect modifications approved by the Department following the February 21, 1997 renewal, shall be maintained at this facility.

The Permittee shall submit a written description of any proposed changes to be made to the approved Final O&M Manual for review, and approval by the Department, prior to the implementation of any such changes, in conformance with N.J.A.C. 7:26-2.11(b)18. A proposed revision to the approved Final O&M Manual shall be reviewed in accordance with the Solid Waste Facility Permit modification rules at N.J.A.C. 7:26-2.6. Within 30 days of receipt of the proposed revision, the Department shall determine if grounds exist for Permit modification, notify the Permittee of the findings, and request additional information if required. If the proposed revision of the Final O&M Manual is determined by the Department

to be a minor modification in accordance in N.J.A.C. 7:26-2.6(d), the Permittee will be so notified and the proposed revision will be effective within 60 days from the date of receipt by the Department of the submittal.

6. Community Relations Plan

The Permittee shall implement the community relations plan, which identifies the steps to be taken to transfer information to, and solicit input from, the community in which the facility is located. The plan shall be maintained as a section of the Final 0 & M Manual. At a minimum, the community relations plan shall provide for the following:

a. Annual open meetings with local officials (or their representatives) and the general public of the district where the facility is located. Notification of the open meeting to be held shall also be provided to the general public of the district(s) serviced by the facility. The purpose of these meetings is to allow public input and to provide a forum for exchanging ideas; and,

b. A notification procedure, whereby the public is provided a report of findings in the case of an emergency incident at the facility.

7. Facility Personnel Training

The Permittee shall comply with the following requirements pertaining to facility personnel training:

a. All personnel who are directly involved in facility waste management activities or who operate, service, or monitor any facility equipment, machinery or systems, shall successfully complete an initial program of classroom instruction and on-the-job training that includes instruction in the operation and maintenance of the equipment, machinery and systems which they must operate, service or monitor in the course of their daily job duties, and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of N.J.A.C. 7:26-1 *et seq.* and the conditions of all Departmental permits issued to this facility.

b. The training program shall be directed by a person thoroughly familiar with the technology being utilized at the facility, the applicable waste regulations contained within N.J.A.C. 7:26-1 *et seq.*, and the conditions of the facility's permits.

c. The training program shall ensure that facility personnel are able to effectively respond to any equipment malfunction or emergency situation that may arise. The training program shall provide instruction in the use of personal safety equipment, procedures for inspecting and repairing facility equipment, machinery and monitoring systems (including any emergency equipment), the use of communications and/or alarm systems, the procedures to be followed in response to fire, explosions, or other emergencies, and the procedures to be followed during planned or unplanned shutdown of operations.

d. Employees shall not work in unsupervised positions until they have completed the training program referenced herein.

e. Facility personnel shall take part in a planned annual review of the initial training program.

f. Training records that document the types and amounts of training received by current facility personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least one (1) year from the date the employee last worked at the facility.

g. The Permittee shall maintain a written training plan that includes the types and amounts of both the initial and follow-up training to be provided to facility personnel. This written plan shall be maintained as a section of the 0 & M Manual.

8. Facility Staffing

The Permittee shall comply with the following requirements pertaining to facility staffing:

a. The facility shall maintain sufficient trained personnel during each scheduled shift to assure the proper and orderly operation of all system components, along with the ability to handle all routine facility maintenance requirements and to implement any emergency procedures that may become necessary. Such personnel shall have sufficient educational background, employment experience, and/or training to enable them to perform their duties in such a manner as to ensure the facility's compliance with applicable Department regulations and permits, the conditions of this Permit and all other permits or approvals issued to the facility, and the safe operation of the specific processes utilized at the facility.

b. Each shift shall have a designated shift supervisor authorized by the Permittee to direct and implement all operational decisions during that shift.

c. Facility staff responsible for the operation of the thermal destruction facility's boilers shall be appropriately licensed in accordance with N.J.A.C. 12:90 "Boilers, Pressure Vessels and Refrigeration" of the Rules and Regulations of the New Jersey Department of Labor.

d. The facility shall have under contract a New Jersey licensed professional engineer as a consultant to oversee the general plant operations. This engineer shall possess experience in the design and operation of the major system components or equipment that constitute the facility.

9. Waste Delivery Schedule

Waste shall be accepted for processing at the facility only in accordance with the following delivery schedule:

2:00 AM to 8.00 PM Monday through Saturday

Waste deliveries to the facility shall be scheduled in such a manner as to minimize truck queuing on the facility property. Under no circumstances shall delivery trucks be allowed to back up onto public roads.

The Permittee, shall pre-arrange hours of waste delivery to the facility, by contract or otherwise, to ensure that a minimum of 7% of the total vehicle deliveries of waste made to the facility are accommodated during the delivery hours of from 2:00 AM to 7:00 AM and 5:00 PM to 8:00 PM Monday through Friday, and from 2:00 AM to 7:00 AM and 3:00 PM to 8:00 PM on Saturday.

10. Traffic Survey and Control Plan

a. After the proposed re-alignment of Route 1 & 9 is complete, the Permittee shall provide for the following:

i. Vehicles accessing the facility from eastbound Lawrence Street shall be directed to access the facility with a left turn onto the former highway, as shown on Figure 11 of the FEHIS Addendum II, Volume I, August, 1988.

ii. The main entrance shall be used for ingress/egress, as shown in Exhibit 28 of the FEHIS Addendum II, Volume I, and August, 1988.

iii. Within 30 days of official opening, the Permittee shall conduct a traffic survey for the intersection of Lawrence Street/Hazelwood Avenue (P.M. Peak Hour), to ensure the LOS of the intersection is not adversely affected by the facility traffic.

b. The Permittee shall implement, or cause to be implemented, the signal timing changes as discussed in the March 26, 1996 letter to Mr. Jeffrey Callahan, Executive Director, UCUA, from Mr. William Anderson, NJDOT, regarding the intersection of Route 27/St. Georges and West Grande/Westfield, and shall provide for the following:

i. Within 30 days of implementing such changes, a traffic study shall be performed, and the results of such study shall be utilized to evaluate the intersection LOS and for respective approaches.

c. A detailed report outlining the survey methods and results obtained in the above-mentioned studies shall be submitted to the Bureau within 30 days of the completion of the surveys.

i. If the survey results obtained in a. above indicate that facility traffic results in an unacceptable decrease in the LOS, as described and defined at the New Jersey Department of Transportation Highway Access Management Code (N.J.A.C. 16:47), the Permittee shall make an immediate request to the NJDOT or the Union County Department of Engineering and Planning, to evaluate the need

for appropriate signal timing changes. Copies of correspondence exchanged between the Permittee and the above-referenced agencies, as well as documentation that any action with respect to signal timing changes has been taken, shall be submitted to the Bureau.

ii. If the survey results obtained in b. above indicate that facility traffic cause an unacceptable decrease in the LOS (as described above), the Permittee shall develop a proposal to address possible remedies. Once developed, the proposal shall be presented to the appropriate agencies for review, and copies of correspondence exchanged between the respective agencies shall be submitted to the Bureau. If any remedy includes a proposed change to the current vehicle routing plan, such change shall be consistent with the Union County District Solid Waste Management Plan.

11. Haulage Vehicles

The Permittee shall allow only vehicles, properly registered with the Department pursuant to N.J.A.C. 7:26-3, for the transportation of wastes, to deliver and deposit wastes at the facility, or to remove residues, or unprocessible or bypass materials from the facility.

The Permittee shall implement the necessary steps, as indicated in the O&M Manual, to prevent the continued acceptance of any haulage vehicles not equipped with adequate exhaust silencing systems, or that otherwise create excessive noise. The Permittee shall maintain a program to notify affected vehicle owners of the problem and to inform said owners that the situation must be corrected or the vehicle will be denied access to the facility.

12. Waste Delivery Haul Routes

The Permittee shall aid and assist the Union County Utilities Authority, to the maximum extent possible, in ensuring that haulers delivering waste to the facility adhere to the designated primary refuse truck delivery routes from and to each collection area served by the facility as prescribed in the approved Union County District Solid Waste Management Plan. As a component of this cooperative undertaking, the Permittee, prior to receiving waste from individual sources outside of the Union County Solid Waste Management District, shall formally notify those parties responsible for the delivery of waste of the need to utilize the designated primary refuse truck delivery routes to access the facility. Where waste sources outside of the Union County Solid Waste Management District are to enter into a contract or written agreement with the Permittee for disposal service, such contract or written agreement shall reference as a term or condition that the transport of waste to the facility shall only be by means of the designated primary refuse truck delivery routes as prescribed in the approved Union County District Solid Waste Management Plan.

13. On-Site Traffic Control

On-site traffic control measures shall be maintained to provide for orderly vehicular movement on the facility grounds. The measures implemented shall include the appropriate use of lane

delineations, signals, signs, barriers or any combination thereof to ensure an orderly flow of traffic delivering waste to the facility through the scale to the tipping floor, then leaving the tipping floor and exiting the facility through the scale. Trucks carrying ash residue, recovered ferrous metals, unprocessible or bypass wastes from the facility shall be similarly controlled and directed to minimize interference with waste delivery traffic. All on-site roadways used by haulage vehicles shall be constructed in accordance with standards established for heavy truck usage, and shall be maintained in accordance with these standards. Signs shall be posted on all facility roadways indicating a maximum speed limit of 10 mph.

14. Waste Acceptance and Processing Rates

a. At no time shall wastes be delivered to the facility at a rate exceeding the facility's capacity to store and process such waste. Waste storage is allowed in only those areas specifically identified in the design for such purposes. Under no circumstances shall waste be deposited beyond the confines of the refuse pit, except for the purpose of conducting incoming waste load inspections and holding unauthorized materials in accordance with Condition Number 15 or storing unprocessible materials such as oversize bulky waste in accordance with Condition Number 26, or unless otherwise approved by the Department.

Further exception to this limitation is granted in the case of transfer trailer unloading operations within the tipping hall, where the nature of the operation requires trailer contents to be unloaded onto the tipping floor before the waste is moved into the pit by means of a front end loader. Under such circumstances, the unloading activity being conducted, and the waste materials staged temporarily on the tipping floor, shall not be allowed to restrict the fluid movement of other haulage vehicles into and out of the tipping hall.

b. The facility shall not process waste in excess of 562,100 tons per reporting year as determined by means of the facility truck scale records, used in conjunction with a pit level determination made at the beginning of each reporting year to adjust for the storage differential. For the purposes of definition, the reporting period shall begin January 1 and end December 31 of the same year. The facility's rate at which it can process solid waste shall be further limited to a maximum steam production rate of 1,525,516 pounds per boiler (at a temperature of approximately 830 degrees F. and a pressure of approximately 880 psia) over any discrete twelve (12) hour block of time (i.e. 12 midnight to 12 noon, 12 noon to 12 midnight, etc.).

15. Unauthorized Waste

A program shall be maintained to detect and remove unauthorized and prohibited wastes from the waste stream entering the facility. This program shall include the recyclables inspection plan included in the approved Operations and Maintenance Manual, and at a minimum, shall also include the following steps:

a. The Permittee shall maintain a sign at or near the scale house which clearly indicates acceptable and prohibited waste types. The penalties for false certification and

unauthorized waste delivery shall also be included on the sign.

b. Continuous visual monitoring of the incoming waste shall be conducted by both the tipping floor attendant and the crane operators. In addition, random inspections of incoming waste loads shall be conducted.

The crane operator and/or tipping floor attendant shall immediately notify the shift foreman or shift supervisor and plant security personnel, should suspect unacceptable waste be discovered. Unauthorized materials found by the visual inspection program shall not be charged to the feed hoppers; appropriate measures shall be taken to remove the materials safely from the refuse bunker.

In particular, the crane operators and the floor attendants should be trained to search for, identify and safely remove the following materials:

- Drums or other large metal, plastic or fiberboard containers with unknown contents
- Bulk sludge(s) or wet solids not characteristic to municipal solid waste
- Military ordnance or other explosives
- Large pressurized containers
- Any suspicious, enclosed package

Any suspected hazardous waste, drums, or liquids found in a load accepted at the facility shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner, and the discovery of any suspected hazardous wastes at the facility shall be immediately reported to the N.J.D.E.P. Environmental Action Line at (609) 292-7172. The Permittee shall secure the name of the collector-hauler suspected of delivering hazardous waste to the facility and related information surrounding the incident, if available, and shall make this information known to the Department's enforcement personnel.

16. Maintenance and Repair

Through an effective inspection, planned maintenance, repair and parts replacement program, the facility systems and related appurtenances shall at all times be kept in proper operating order. As part of this program, the Permittee shall maintain an appropriate inventory of spare parts and replacement equipment. Malfunction of any instrumentation used to monitor process operations for environmental effects that prevents the continual processing of waste in compliance with this Permit, shall be considered an equipment malfunction as defined in Condition Number 24 of this Permit, and action shall be taken accordingly.

The Permittee shall record the results of all inspections in a log book or by means of an electronic data storage system approved by the Department which shall be accessible at the facility at all times for inspection by the Department. Records of inspection shall be maintained centrally in the facility for a minimum of five (5) years from the date of inspection. These records shall include the date and time of the inspection, the name of the inspector, a notation of observations and recommendations and the date and nature of any repairs or other remedial

actions taken.

17. Housekeeping

Routine housekeeping and maintenance procedures shall be implemented within the facility interior to prevent the excess accumulation of dust and debris, and to maintain general cleanliness in the working environment. The tipping floor shall be cleaned at least once daily. Facility grounds shall be maintained in a manner free of litter, debris, accumulations of unprocessed waste, process end products, and process residues and effluents. All paved areas on-site shall be swept routinely to minimize the accumulation of dirt and debris on the paved surfaces.

Unprocessed incoming wastes, facility process waste residues, recovered ferrous metals, and wastewater effluent stored in bunkers, basins, pits, bins, slumps, or similar contaminant vessels, shall at all times be kept at levels that prevent spillage or overflow.

All facility floor drains, traps, sumps or similar catchment basins shall be maintained free of obstructions to facilitate effluent drainage.

18. Building Exterior Facings and Landscaping

The exterior facings of all facility buildings or similar structures shall be maintained in a manner in keeping with the original design intent to enhance the appearance of the property. All vegetation planted as part of the landscaping plan shall be maintained and replaced as needed.

19. Wastewater Disposal

Process wastewaters from the settling basin and sanitary system shall be directed to the on-site central lift station for discharge to the Rahway Valley Sewage Authority (R.V.S.A.), and such discharges shall comply with all pretreatment requirements of the R.V.S.A.

Sludge and solid residues collected from the facility's process wastewater and stormwater settling basins shall be characterized for disposal in accordance with the waste classification requirements at N.J.A.C. 7:26G-1 *et seq.*, and the requirements of the Department's Hazardous Waste Regulation Program.

20. Noise Control

Noise control shall be implemented so that sound levels generated by the facility operation shall not exceed the standards set forth by the New Jersey State Noise Control Regulations under N.J.A.C. 7:29-1 *et seq.*

21. Odor Control

The operation of this facility shall not result in odors associated with solid waste being detected off-site by sense of smell in any areas of human use or occupancy.

The tipping floor entrance and exit doors shall remain closed at all times other than the normal, scheduled refuse truck delivery hours.

If a facility outage or other condition results in odors being detectable off-site, a commercial/industrial strength odor control agent shall be applied in the refuse storage bunker area. In the case where a total facility outage occurs, and said outage is determined to be long-term in nature (that is, longer than 3 days), the Permittee shall remove all waste in storage at the facility and dispose of it in a manner consistent with the Union County District Solid Waste Management Plan as well as any amendment to or approved Administrative actions concerning such plan, and in compliance with the solid waste regulations found at N.J.A.C. 7:26-1 *et seq*.

22. Vermin Control

The Permittee shall maintain an effective vermin control program at the facility that is in compliance with the requirements of the New Jersey Pesticide Control Code, N.J.A.C. 7:30-1.1 *et seq.*, and which, shall be implemented by a qualified applicator of pesticides, certified in accordance with the New Jersey Pesticides Control Code N.J.A.C. 7:30-1.1 *et seq*.

23. Fire Protection

The fire detection and protection system shall be maintained in operable condition at all times. Fire-fighting equipment shall be available on-site or on call to extinguish any and all fires. Fire-fighting procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance and hospital facilities.

24. Emergency Situations

An emergency situation shall be defined as the occurrence of a fire, an explosion, an uncontrolled discharge, as defined at N.J.A.C. 7:26E-1.8, and unpermitted air emission to the environment, and/or a major equipment malfunction. A major equipment malfunction is a system or equipment malfunction that prevents the continual processing of waste in compliance with this Permit. In the case of an emergency situation, other than a major equipment malfunction that did not result in a fire, explosion, discharge, or emission, the plant operator or the emergency coordinator identified in the Emergency Contingency Plan included in the Final O&M Manual shall implement the following actions:

a. The plant operator or emergency coordinator shall immediately identify the character, exact source, amount and extent of any discharged materials and notify appropriate Federal, State and local agencies as specified, but not limited to, those listed in Emergency Contingency Plan, with designated response roles, if assistance is needed;

b. Concurrently, the plant operator or emergency coordinator shall assess, in conjunction with the appropriate authorities, possible hazards to public health or the environment that may result from the discharge, fire or explosion. This assessment shall consider both direct and indirect effects;

c. If the plant operator or emergency coordinator determines that the facility has had an

uncontrolled discharge, a discharge above standard levels permitted by the Department, or a fire or explosion, he or she shall:

i. Immediately notify appropriate Federal, State and local authorities to determine if an assessment of the event indicates that evacuation of local areas may be advisable; and

ii. Immediately notify the Department at (609) 292-7172. When notifying the Department, report the type of substance and the estimated quantity discharged, if known, the location of the discharge, actions the person reporting the discharge is currently taking and/or proposing to take in order to mitigate the discharge, and any other information concerning the incident which the Department may request at the time of notification.

Nothing in this condition shall be deemed to supersede any notification required pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10.23 *et seq.*, Hazardous Substance Discharges: Reports and Notices, N.J.A.C. 7:1-7, the air pollution notification required pursuant to N.J.S.A. 26:2C-19, or other established emergency response protocol or regulation.

d. The plant operator shall take all reasonable measures to ensure that fires, explosions and discharges do not recur or spread to other areas of the facility. These measures must include, where applicable, the cessation of process operations and shall involve the collection and containment of released waste and discharges.

e. Immediately after an emergency, the plant operator or emergency coordinator shall provide for the treating, storing or disposing of waste, contaminated soil or water, or any other material contaminated as a result of the discharge, fire or explosion;

f. The plant operator or emergency coordinator shall insure that no waste is processed in the affected unit or area until cleanup procedures are completed and all emergency equipment listed in the contingency plan is again fit for its intended use; and

g. The plant operator or emergency coordinator shall notify the Department and appropriate local authorities when operations in the affected area(s) of the facility have returned to normal.

h. For incidents not covered by other Departmental rules and reporting procedures, the plant operator or emergency coordinator shall submit a written report on the incident to this Division. Such report shall be submitted within fifteen (15) days after the incident, and shall include, but not be limited to:

i. The name, address and telephone number of the facility;
ii. The date, time and description of the incident;
iii. The extent of injuries, if applicable, with names and responsibilities indicated;
iv. An assessment of actual damage to the environment, if applicable;

v. An assessment of the scope and magnitude of the incident;
vi. A list of the names, titles, addresses, and telephone numbers of all persons contacted to report the incident, and the time and date that each was contacted;
vii. A description of the immediate actions that have been initiated to clean up the affected area and prevent a recurrence of a similar incident; and,
viii. An implementation schedule for undertaking longer term measures to effect cleanup and avoid recurrence of the incident, if applicable.

In the case of a major equipment malfunction, the Permittee shall undertake corrective actions immediately and shall notify the Department of the existence of such a situation and the circumstances contributing to the situation within the working day of its occurrence. The notification shall outline the cause of malfunction, the corrective action taken, and the anticipated repair time.

Wastes that cannot be accepted at the facility due to an emergency situation or wastes already in storage at the facility that cannot be processed due to a long-term facility outage that may result from the emergency situation, shall be disposed of in a manner consistent with the Union County District Solid Waste Management Plan as well as any amendment to, or approved Administrative actions concerning, such plan, and in compliance with the solid waste regulations found at N.J.A.C. 7:26-1 *et seq*.

25. Security

Access to the site shall be restricted to only facility personnel and authorized visitors. The Permittee shall act to prevent accidental or unintentional entry and minimize the possibility for unauthorized entry into the facility. In this regard, security procedures shall be maintained that provide for an effective means of controlling entry and exit at all times. Guards, attendants, visual monitors or locked gates shall be utilized at all site entrances and exit points to provide necessary security at the facility. Security fencing with gate controls shall be maintained around the entire facility.

26. Non-processible, Process Residue and Recovered Ferrous Metals Handling and Storage

All non-processible waste materials, recovered ferrous metals and process residues shall be stored within the confines of an enclosed facility building at all times prior to removal from the site. Exterior storage of non-processible waste materials, recovered ferrous metals and process residues on the site is expressly prohibited.

Storage of ash residue, scalped materials and recovered ferrous metals shall be restricted to the Residue Building.

Storage of unprocessible waste materials shall be restricted to the grapple drop areas at the tipping floor level.

Overhead (roll-up) doors and personnel doors on the Scalper Building and Residue Building shall be closed in the event that airborne dust is observed during anytime of facility operations,

and these doorways shall remain closed until such time that the fugitive dust condition subsides or is abated.

27. Process Residue Disposal Approval

Throughout the effective term of this Permit, the following shall be implemented and maintained for facility operations:

a. A valid contract with the owner(s) of landfills designated to receive bypass waste, non-processible waste, and non-hazardous ash residue, and the haulage firm(s) designated to handle said materials. Copies of any new contracts shall be submitted to the Department, when executed.

b. A contingency plan for the secure handling, storage, transport and disposal of ash residue that may be-found to be hazardous after analysis, and any suspect hazardous waste segregated from the incoming waste received at the facility.

   i. As part of the contingency plan, a formal contract shall be executed and maintained with a licensed hazardous waste disposal facility for the purpose of disposing any ash residue generated that may be proven hazardous after analysis, as well as any suspected hazardous waste that may be segregated from the incoming waste received at the facility. Copies of any new contracts shall be submitted to the Department, when executed.

   ii. The Permittee shall maintain written procedures for the hazardous waste manifest program that will be followed, in accordance with Federal and State requirements. Ash residue and any unacceptable waste materials that may be found to be hazardous after analysis, shall be transported by a licensed hauler to the licensed hazardous waste disposal facility retained by the Permittee for that purpose.

c. A finalized plan or program shall be maintained for the secured storage of ash residue, pending the receipt of the analytical results used in the classification of the residue for disposal, during any ash residue re-characterization analysis that may be required. If such storage cannot be accommodated and/or approved by the Department, residue generated during any such period shall be manifested and transported as hazardous waste and disposed of in accordance with its classification and the applicable laws in the State of disposal.

28. Residual Ash Monitoring Program

A residual ash monitoring program shall be maintained by the Permittee for the purpose of assessing the chemical characteristics of the ash residue generated by facility operations.

Material sampling methods, sample preservation requirements, sample handling times and decontamination procedures for field equipment shall conform to applicable industry methods as specified in the NJDEP "Field Sampling Procedures Manual." Other methods may be used

on written approval from the Division of Solid and Hazardous Waste.

As a minimum, this monitoring program shall make provision for the following:

a. Analyses shall be conducted in accordance with the following schedule:

	ANALYSIS:	
TIME PERIOD	Toxic Characteristic Leaching Procedure (metals only)	Total TCDD's (17 2,3,7,8-substituted PCDD and PCDF Congeners)
Confirmatory	Monthly	Any stack-testing event conducted for dioxins
Re-Characterization	Weekly	N/A

b. During Confirmatory testing, the residual ash generated by the facility shall be sampled in accordance with the following protocol:

MONTHLY

One sample of sufficient size and of equal proportion shall be collected (as a minimum) every hour. All samples shall be collected from the designated location on the conveyors just after the grizzly scalper. Samples shall contain both bottom and fly ash wastes in a mixed ratio representative of the ash residue slated for disposal. Daily composite samples shall be prepared by combining all samples collected during each day. The resulting daily composite samples shall be further combined into a monthly composite sample, A minimum of four (4) samples shall be taken from the composite for analyses.

STACK-TESTING EVENT

During any stack-testing event for dioxins, at least one sample of sufficient size and of equal proportion shall be collected every hour during each day on which stack testing occurs. All samples shall be collected from the designated location on the conveyors just after the grizzly scalper. Samples shall contain both bottom and fly ash wastes in a mixed ratio representative of the ash residue slated for disposal. A composite sample representative of the ash residue generated during the stack-testing event shall be prepared by combining all samples collected into a single sample. A minimum of four (4) samples shall be taken from the resulting composite sample for analyses.

c. A new eight-week ash residue characterization period may be required by the Department if: there is a significant change in facility processes and/or operations; if there is a significant change in the type of waste(s) received for disposal at the facility; or if the results of the monthly analyses demonstrate that one or more of the parameters exceed the TCLP regulatory limits.

Re-characterization analysis will be parameter-specific in the instance where the analysis indicates concentrations in the sample extract are above the defined regulatory threshold for that parameter, resulting in the waste residue requiring reclassification as a hazardous waste. Otherwise, analysis will include the full spectrum of listed TCLP parameters.

During any eight-week re-characterization period, one sample of sufficient size and of equal proportion shall be collected (as a minimum) every hour. All samples shall be collected from the designated location on the conveyors just after the grizzly scalper. Samples shall contain both bottom and fly ash wastes in a mixed ratio representative of the ash residue slated for disposal. Daily composite samples shall be prepared by combining all samples collected during each day. The resulting daily composite samples shall be further combined into a weekly composite sample. A minimum of four (4) samples shall be taken from the weekly composite for analyses. The Permittee shall retain an equivalent portion of each weekly composite sample collected during this eight-week period, so that the Department may conduct follow-up analyses when necessary. The samples retained shall be clearly marked for identification, appropriately preserved using approved techniques, and stored at the facility for a period of sixty (60) days from the date the composite sample is transferred to the laboratory for analysis.

During the eight-week residue re-characterization period, each week's ash residue shall be stored separately until the analytical results from that week's composite sample are received, and a determination is rendered on the hazardous or non-hazardous nature of the material.

If the results of the analyses equal or exceed the TCLP parameter-specific regulatory threshold or if the residue material is otherwise determined to be hazardous by the Department based on the analytical results, that ash shall be disposed of at the hazardous waste disposal facility secured by the Permittee for that purpose. If the material is determined to be non-hazardous, it shall be disposed of at a landfill permitted to receive waste ID number 27I as defined at N.J.A.C. 7:26-2.13(g), and in accordance with the Union County District Solid Waste Management Plan, as applicable.

At the completion of the eight-week period of re-characterization, the monthly ash residue sampling and analysis regimen outlined in a. and b. above, shall not be re-instituted without express written approval from the Division of Solid and Hazardous Waste.

d. All analyses called for as a condition of this Permit shall be performed by a laboratory approved, and/or certified by the Department for those specific analyses. Analyses shall be performed in accordance with the procedures outlined in the most recent edition of Test Methods for Evaluating Solid Waste,- Physical/Chemical Methods, U.S. EPA publication SW-846. Analyses for dioxins shall be performed using Method 1613B. Results shall be subject to statistical analysis as outlined in SW-846. The

Permittee shall submit each set of analytical results, with the appropriate statistical analysis, to the Division of Solid and Hazardous Waste immediately upon the receipt of said results. The following information shall accompany the analytical determinations:

i. The date(s), time(s), and place of sampling and analysis;
ii. Chain of custody for all samples collected;
iii. The name(s) of the individual(s) who performed the sampling, compositing and analysis;
iv. The sampling and analytical methods used and/or protocols followed (include the minimum detection levels of the parameters for analysis being undertaken; and in the case of TCLP determinations, the initial and final pH of the sample); and
v. The dated signature and certification of the sampling and analytical report by an authorized agent of the Permittee.

e. The Permittee shall retain all analytical reports at the facility for a period of three (3) years from the date of analysis.

f. The Permittee shall increase the monitoring frequency and/or expand the list of parameters for which testing is to be performed, should the waste types or quantities of waste types received for processing be significantly altered. The Department reserves the right to alter, at its discretion, the list of test parameters, the methods of sample collection, the analytical procedure's employed, and the frequency of sampling and analysis, as is deemed necessary.

g. The Permittee may request the Department to reduce the number of test parameters specified herein by applying qualitative knowledge of incoming waste streams. If the Permittee demonstrates through testing that the concentration of any given parameter is consistently below method detection levels, as determined using the Toxicity Characteristic Leaching Procedure (TCLP) as defined in SW-846, or the concentration of any given parameter as determined using a total metals analysis as defined in SW-846, is consistently below twenty times the regulatory threshold levels of the TCLP, the Permittee may request that the Department eliminate those parameters from subsequent analysis.

29. Ash Residue Removal

All truck bodies or containers used to remove ash residue, unprocessible waste materials and recovered ferrous metal, shall be sealed to prevent leakage and shall not be filled to levels that permit overflow or spillage during transport. The ash residue and unprocessible waste removal vehicles (truck bodies and/or containers) shall be covered to prevent spillage or scattering by wind during transport.

Trucks removing ferrous metals shall also be covered to prevent spillage during transport; however, those vehicles which are loaded in a manner such that the recovered ferrous does not extend above the level of the container or truck body, are not required to be covered.

Vehicle and/or container loading shall be conducted solely within the confines of the Ash Residue Building in a controlled manner that minimizes dusting and prevents the tracking of ash to the exterior of the building. Truck tires shall be inspected and, if necessary to prevent the tracking of ash onto plant roads, shall be washed and/or brushed clean before the trucks leave the loading area.

Ash residue, unprocessible materials and ferrous metal removal vehicles shall leave the facility promptly after being loaded. Exterior storage of ash residue, unprocessible or recovered ferrous metal in loaded trucks is prohibited.

30. Operations Records

The Permittee shall maintain records of facility operations on a daily basis, and shall submit a monthly summary report of the daily totals for the reportable items listed below, which shall also include the monthly totals for each item. This report shall be submitted to the following address, before the 15th of the following month:

Chief
Bureau of Resource Recovery and Technical Programs
Division of Solid and Hazardous Waste
PO Box 414
Trenton, New Jersey 08625-0414

All such reports shall be signed, certified, and dated by an appropriate authorized agent for the facility. The information submitted shall include, but not be limited to the following:

a. The weight and origin of solid waste delivered to the facility for each waste type permitted by this Permit;

b. The weight of unprocessible solid waste removed for alternate disposal, and the facility receiving that waste for disposal;

c. The weight of ash residue removed for disposal, and the facility(s) receiving the residue for disposal;

d. The weight of recovered metal removed, and the facility receiving the recovered material;

e. The quantity of steam generated (in pounds) for each combustion unit over each discrete twelve-hour block of time;

f. The total electrical energy generated (in kilowatt-hours per day) and the net electrical energy exported; and

g. The volume of aqueous ammonia (in gallons) delivered to the facility.

Pursuant to N.J.A.C. 7:26-6.4, the monthly summary report shall be supplemented with information regarding the sources of wastes received during the reporting month and the transportation and/or disposal pattern associated with such wastes.

Operations records shall be maintained on the premises for a three-year period, and shall be made available for inspection by departmental personnel upon request.

All printed or electronically recorded records generated by the facility's monitoring and control systems through log printers, strip chart recorders or other means shall also be kept on file at the facility for a period of at least three (3) years from the date of data collection, and such records shall be made available for inspection by the Department upon request.

All records associated with the performing and/or monitoring of air pollution controls shall be maintained at the facility for a period of at least five (5) years, in accordance with Federal PSD requirements.

31. Plans On-Site

One complete set of the following documents shall be kept on file at the facility, and shall be available for inspection by Department personnel or its designated representatives:

a. The Environmental and Health Impact Statement, with Appendices and Addenda;

b. The most recent set of referenced engineering plans, drawings and engineering documents cited in Condition Number 4 of this Permit;

c. The Final Operations and Maintenance Manual;

d. The Applications and support documents for all permits obtained, including any Permit Renewal applications and associated documents; and

e. This Permit and all other Department permits, with their conditions for operation.

32. Right of Entry

The Permittee hereby agrees and authorizes Department personnel or the Department's designated representatives to make whatever inspections, and examinations of all premises occupied by the facility which may be impacted by the activities authorized by this Permit whenever these representatives, in their discretion, consider such an inspection or examination necessary to determine the extent of compliance with the conditions of this Permit. Any refusal to allow entry to the Department's representatives shall constitute grounds for either suspension or revocation of this Permit.

33. Accommodations for Department Inspectors

The Permittee shall provide permanent office space at the facility to accommodate a Department inspector on a daily basis during all facility operating hours. The Permittee shall allow entry to the inspector at any time during the facility operating hours. The inspector's work space shall be equipped with the appropriate computer hardware including a display screen, that will allow for access to the facility's automated process monitoring, control and information system. The computer hardware system shall allow the inspector to observe the same operational and control information that is available to the facility operations station in the central control room.

34. Duration of Permit

This Solid Waste Facility Permit shall expire on February 21, 2002. This Permit may be renewed at that time upon proper application, in accordance with N.J.A.C. 7:26-2.7.

35. Conformance with the Solid Waste Management Plan

Pursuant to N.J.A.C. 7:26-6.12(b), the Permittee shall operate the facility in compliance with any applicable district solid waste management plan(s) as well as any amendments to and/or approved administrative actions concerning such plan(s). Should the Permittee fail to comply with any applicable district solid waste management plan(s) as well as any amendment to or approved administrative actions concerning such plan(s), the Permittee shall be deemed in violation of N.J.S.A. 13:1E-1 *et seq*. and N.J.A.C. 7:26-1 *et seq*. and shall be subject to applicable penalties provided thereunder, and any other laws or regulations.

Failure to comply with any or all limitations heretofore mentioned will result in the Department seeking relief under N.J.S.A. 13:lE-1 *et seq*., the Solid Waste Management Act. Specifically, each day of failure to comply shall constitute a separate violation on the basis of which a penalty shall be assessed and may result in loss of operating authority, pursuant to N.J.S.A. 13:1E-12.

The issuance of this Permit and the conditions of operation identified herein shall not be interpreted as relieving the Permittee of the responsibility to secure and maintain all other applicable Federal, State and local permits or similar forms of authorization relating to the construction and operation of this facility.

- END OF DOCUMENT -